Public Water System
Emergency Plan Guide

(for community systems serving 500 people or less)

New Hampshire Administrative Rule Env-Ws 360.15 requires community public water systems to have an emergency plan. Emergency plans are action steps to follow should a primary source of drinking water become contaminated or the flow of water disrupted. Emergency plans for community systems serving 500 or less people must be reviewed annually by the water system and an updated plan submitted to the DES at least every 6 years.

The purpose of this emergency plan guide is to help you understand and meet the basic standards for an emergency plan as set forth in Env-Ws 360.15. An emergency plan helps to: (1) establish a protocol for the management and staff of a water system to follow in case of an emergency, and (2) help a water system reduce its vulnerability to emergencies. Fill in all boxes or circle "yes" or "no" where required. *Please note you are not required to use this exact format as long as each section listed in the guide is addressed– it is simply a tool to help you write your own plan.* A sample completed plan is available for your further reference and assistance.

Section 1. System Identification

System EPA Identification Number		
System Name		
Town		
Source ID/Type/Description/Well Yield (from DES records)		gpm
Source ID/Type/Description/Well Yield (from DES records)		gpm
Source ID/Type/Description/Well Yield (from DES records)		gpm
Population Served and Service Connections (from DES records)	people	connections
System Owner (the owner must be listed as a person's name)		
Name, Title, and Phone Number of person responsible for maintaining this emergency plan.	name and title	phone

Section 2. Chain-of-Command

A water system must have and maintain an up-to-date organizational chain-of-command that identifies who is responsible for making decisions during an emergency. **The first response step** in an emergency is to inform the person at the top of your chain-of-command. This will reduce confusion and optimize response speed and effectiveness. Your emergency plan must include a chain-of-command flow chart listing names, titles, and day/night phone numbers of the key people who will be responsible for managing an emergency at your system. Additionally, the system must determine the role of each key person during an emergency. **Attach your chain-of-command flow chart and a brief description of each person's responsibilities during an emergency.**

Section 3. Notification

It may be necessary to quickly notify other parties during an emergency situation. Other parties might include your water system users, health officials, safety officials, regulatory personnel, and service/repair providers. Please fill out the lists on the next page. The following lists are not intended to be inclusive – they may be adapted to your specific needs, but they must be thorough. Attach any additional listings that you consider appropriate. The level of effort needed for notification will vary greatly depending on the size of the system and the nature of the emergency. All systems should plan ahead how you will accomplish notification. **Attach your notification procedure.**

Local Notification List

Fire Dept day	Fire Dept night
Police Dept day	Police Dept night
Ambulance service day	Ambulance service night
Health Office day	Health Office night
Water System Operator day	Water System Operator night
Neighboring Water System day	Neighboring Water System night
Neighboring Water System day	Neighboring Water System night
Other	Other
Other	Other
Other	Other

State Notification List

State Police day 1-800-852-3411	State Police night 1-800-852-3411
Water Supply Engineering Bureau day 271-2513 or 271-3503	Water Supply Engineering Bureau night 271-2513 or 271-3503
Office of Emergency Management day 271-2231 or 1-800-852-3792	Office of Emergency Management night 271-2231 or 1-800-852-3792
Public Health Services day 271-4496	Public Health Services night 271-4496
Other	Other
Other	Other

Service/Repair Notification List

Electrician day	Electrician night
Electric Utility day	Electric Utility night
Plumber day	Plumber night
Pump Specialist day	Pump Specialist night
Soil Excavator day	Soil Excavator night
Equipment Rental day	Equipment Rental night
Other	Other
Other	Other
Other	Other

Notification Questions

Does this system have a specific location(s) where up-to-date notification information, including phone numbers of key officials and services, is kept at all times?	Yes No	1
Are the key decision-makers of this system clearly aware of where to quickly find this information?	Yes No	2
Are the key decision-makers of this system familiar with your notification procedures?	Yes No	3
If you circled "no" to line 1, 2, or 3, when will the situation be corrected?		4

Unique Water System Users
In an emergency, your water system may have to provide priority notification to users with unique or special water needs. Unique or special users would include nursing homes, elderly housing facilities, hospitals, or individuals with serious medical concerns or mobility limitations. Water systems must identify and maintain an up-to-date list of service customers with unique water needs and make provisions for safe and adequate water supply to them.

Does this system have service customers with unique water needs?	Yes No	5

If you circled "Yes" on line 5, attach your list of unique service customers and a brief description of how you will notify them and provide for their water needs.

Section 4. System Components

It is essential that a water system have accurate up-to-date information about its facilities, equipment, and design. This information will help facilitate repair in case of an emergency and will also be valuable in assessing system vulnerability to an emergency.

System Equipment
Attach an up-to-date list of your system's primary features. List at least each active well, each operable inactive well, total production capacity of each active and operable inactive well, each storage tank, capacity of each storage tank, each treatment facility, and each pump station. If you have an atmospheric storage tank(s), indicate whether or not it is equipped with a capped and lockable fill pipe to accommodate tank truck water delivery. See DES fact sheet WD-WSEB 7-7. Please note that Env-Ws 372.24 requires that all atmospheric storage tanks be equipped with a capped and lockable fill pipe by January 01, 2007.

Does this system have an atmospheric storage tank? If yes, how many?	Yes No _____ # tanks	6
Are your atmospheric storage tank(s) equipped with a fill pipe for supplied water?	Yes No n/a	7

If you answered "No" to line 7, please indicate in the box below when your atmospheric storage tanks will be equipped with fill pipes for tank truck water delivery.

	8

System Plan
Attach an up-to-date plan of your system that shows at least the locations of all individual wells (active and inactive), pump stations, water treatment facilities, storage tanks, distribution lines, and key shutoff points for isolating sections of your distribution system. *Some systems may be concerned with providing this information to DES since it becomes available to the public once it has been submitted. If you have this concern, please do not submit your plan. Instead provide an explanation regarding the status of your plan, where it is kept and DES will review the plan during sanitary surveys.*

System Design

During an emergency, a water system may need to reduce its demand or utilize its excess capacity to continue to provide safe water to its users. **Attach a brief discussion of this system's ability to isolate sections of the distribution system.** The table below looks at how much capacity your system has compared to what your demand is and figures out how many days of water you will have during an emergency. Remember that this information may change during different times of the year.

What is the total production capacity of this system?	gallons per day	9
What is the total storage capacity of this system?	gallons	10
What is the average daily demand of this system?	gallons per day	11
What is the maximum daily demand of this system?	gallons per day	12
Divide total storage capacity by average daily demand.	days	13

Section 5. Boil Order

An emergency could create the potential that your well has been contaminated with microbiologic pathogens. The presence of certain pathogens in drinking water is a significant health concern. If that happens it may be necessary to implement a boil order. **Attach a brief description of how this system would implement a boil order.** Contact the Water Supply Engineering Bureau at 271-2513 for guidance on boil orders. See DES fact sheet WD-WSEB-4-8 Boil Water Advisories.

Section 6. Alternate Water Source

An emergency may necessitate obtaining water from an outside source to meet your basic water needs. All public water systems should plan ahead how it will provide alternate safe water during an emergency. **Attach this system's plan for providing alternate water considering each of the following three options.**

Bottled and Bulk Water

If you do not have an atmospheric storage tank, bulk water delivery from a tank truck is not an option. See DES fact sheet WD-WSEB 18-2 Bulk Water Haulers Serving NH, for a list of potential suppliers of bottled and bulk sources of water. Keep in mind the storage tank fill cap requirement discussed in Section 4, System Equipment. If you simply plan on using a bulk water company it is recommended that you contact the water hauler directly to establish a working knowledge of your bulk water hauler(s) procedure to obtain, transfer, and provide bulk water prior to use of their services. There will be many different scenarios, in regards to bulk water, depending on the system requirements, availability of potable emergency water sources and limitations (regional and seasonal) on the water hauling providers. You don't want to find out that it is not feasible to receive bulk water during an emergency. Preparing written agreements with the bulk water haulers that you contacted and including them in your plan may also be useful.

Have you discussed your potential water needs with at least two suppliers?	Yes No	14
Approximately how long will it take for bottled or bulk water to reach this system?	hours	15

New Source

An emergency may necessitate that your system develop a new source of water or use an inactive source. If your alternate water plan includes using an inactive source, you may have to consider your treatment capabilities.

Tie-in to Adjacent Water Supply System
Some water systems are situated in close proximity to one or more other water systems.

Are any water systems situated adjacent to this system?	Yes	No	16
Have you discussed the feasibility of connecting to another system with representatives of that system(s)?	Yes	No	17
Is it feasible for this system to connect to an adjacent system? If yes, attach a general description of how you would make the connection.	Yes	No	18

Section 7. Water Conservation

Water conservation can be an effective means of coping with minor losses of source capacity. **Attach a description for how this system could use conservation measures during an emergency.** The assessment should discuss the potential of this system to save significant quantities of water through conservation measures, and a prioritization of categories of water use that are marginal or nonessential in times of water shortage.

Section 8. Vulnerability Assessment (Optional)

Env-Ws 360.15 does not require you to submit a vulnerability assessment as discussed in this section. However, **we encourage you to consider such an assessment as a valuable management/planning tool for your system**. Please note that a vulnerability assessment does point out a systems weak points, so we recommend that you leave this section out when submitting your emergency plan to DES so that it does not become public information. Guidance documents are available to help you conduct a vulnerability assessment.

Preventable Emergencies
Some causes of emergencies are preventable. Age and obsolescence of equipment, poor maintenance, poor system design, lack of spare parts, high risk or ill advised land usage near a water source, and lack of source protection efforts are all preventable factors that can cause water system emergencies. Reducing a system's vulnerability to an emergency is a vital part of an emergency plan. Please list and briefly describe any vulnerable areas of your system that need correction or improvement. Consider each supply, storage, and distribution component of your system when you do this, being sure to include each of the primary features of your system that were listed in Section 4, System Equipment. Also consider the land usage near your water source(s) when you describe your vulnerable areas. High-risk land usage near your water source(s) may be preventable through source protection measures. For example, relocating a septic system out of a sanitary radius is a grant eligible activity. The system's Source Water Assessment report, completed by DES, is a good reference tool when completing your vulnerability assessment.

At this time, does this system have any vulnerable component areas that need correction or improvement?	Yes	No	19
At this time, does this system have any land usage concerns that could be minimized through source protection measures?	Yes	No	20
Does this system participate in the sampling waiver program?	Yes	No	21

Section 9. Return to Normal Operation

Attach a description of the follow-up actions and staff responsibilities that this system would undertake to return to normal operation.

Section 10. Plan Readiness

In order for this plan to be useful, people must know the plan exists, they must know where to quickly find the plan, and they must understand their role during an emergency. **Attach a list of people and locations that have a copy of the plan, a policy for outdated plans, and a plan for rehearsals.**

Do the key representatives of this system know about this emergency plan?	Yes No	22
Has this system clearly defined for each key person what his or her responsibilities will be during an emergency, i.e., does each key person clearly understand their role?	Yes No	23
Has this system rehearsed this emergency plan within the last two years?	Yes No	24
For property owner associations: will each successive group of officers be informed of the existence of, and briefed on, all aspects of this emergency plan?	Yes No N/A	25

Section 11. Emergency Plan Requirements

Env-Ws 360.15 requires that community public water systems have an emergency plan. Emergency plans for community systems serving 500 or less people must be reviewed annually by the water system and an updated plan submitted to the DES at least every 6 years. Additionally, the plan must be made available for review during each scheduled sanitary survey. When the DES receives your plan it will be reviewed and entered into our computer database. We strongly suggest that your plan have the same organizational format as this guide. This emergency plan guide is available through the DES website at www.des.state.nh.us/wseb. Every system will be different in terms of the resources needed to develop or update their emergency plan. Grant funding is available each fall for source water protection activities including source security measures.

Section 12. Signatures

Representatives of this water system who helped complete this emergency plan must sign and date below. The signature(s) attests that all the information provided herein is true and accurate. **At least one signature is required, including that of the system owner.**

system representative/title	date
system representative/title	date
system representative/title	date

Return Your Completed Emergency Plan To:

Johnna McKenna
Department of Environmental Services
Drinking Water Source Protection Program
PO Box 95
Concord, New Hampshire 03302-0095
603-271-7017 or 271-0656 (fax)
jmckenna@des.state.nh.us